

Remarks

In the Office Action dated September 20, 2006, the Examiner rejected claims 1, 2, 4-8, 17-18, 21-26, 28-32, 41-42 and 45-52 under 35 U.S.C. § 103 as being unpatentable over the U.S. Patent to Sliwa, Jr., et al., 5,749,364 in view of the U.S. Patent to Mackinnon, et al., 6,546,272. The Examiner rejected claims 19 and 43 under 35 U.S.C. § 103 as being unpatentable over Sliwa, Jr., et al. in view of Mackinnon, et al. and further in view of the U.S. Patent to Esenaliev 6,165,440. The Examiner rejected claims 9, 13-16, 33 and 37-40 under 35 U.S.C. § 103 as being unpatentable over Sliwa, Jr., et al. in view of Mackinnon, et al. and further in view of the U.S. Patent to Baker, Jr., et al., 6,471,968. The Examiner indicated that claims 3, 10-12, 20, 27, 34-36 and 44 were objected to but would be allowable if rewritten in independent form.

By this Amendment, Applicants' Attorney has amended each of the independent claims 1 and 25 to more particularly point out and distinctly claim what Applicants regard as their invention. In particular, each of the independent claims has been amended to make it clearer that when LIOB occurs a LIOB-induced microbubble forms at an LIOB site. Also, each of the independent claims has been amended to make it clearer that at least one acoustic wave is reflected from the microbubble at the LIOB site which is subsequently detected to obtain at least one signal from the LIOB site.

Clearly, these features are neither taught, disclosed or discussed by any of the references of record taken either alone or in combination with one another.

For example, the U.S. reference to Sliwa, Jr., et al. uses a spectrum of ultrasonic reflection from microbubbles to determine fluid pressure. It also proposes the same technique, (i.e., spectrum of microbubble reflection) to distinguish stiffness of tremors from healthy tissue. Microbubbles are introduced into a body by one of oral and intravenous methodologies.

The U.S. Patent to Mackinnon, et al. proposes a catheter-based device with one application being the ultrasonic detection of the collapse of a laser-produced microbubble.

U.S. Patent to Esenaliev proposes the enhancement of drug delivery through the interaction of electromagnetic pulses with nanoparticles.


The U.S. Patent to Baker proposes nanodevices for the delivery of therapeutic agents.

With respect to the proposed combination of Sliwa, Jr., et al. and Mackinnon, et al., it is also respectfully submitted that there is no teaching or motivation to combine the teachings of these two references to obtain the teachings of amended independent claims 1 and 25.

Consequently, in view of the above and in the absence of better art, Applicants' Attorney respectfully submits the application is in condition for allowance which allowance is respectfully requested.

Respectfully submitted,

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